Claims

We claim:

5

10

15

20

25

1. A method comprising:

calculating at least a first and second vector magnitude value corresponding to at least a first carrier and a second carrier, respectively;

calculating a composite vector magnitude from the first and second vector magnitude values; and

attenuating at least one of the first and second carriers based on the composite vector magnitude.

- 2. The method of claim 1, wherein composite vector magnitude corresponds to a composite carrier comprising at least the first and second carriers.
- 3. The method of claim 1, wherein each carrier comprises an in-phase component and a quadrature phase component, and wherein each vector magnitude value is calculated by:

squaring the in-phase component and the quadrature component; and summing the squares of the in-phase component and the quadrature component to obtain the composite vector magnitude.

- 4. The method of claim 1, wherein each carrier comprises an in-phase component and a quadrature phase component, and wherein each vector magnitude value is calculated by:
- squaring the in-phase component and the quadrature component; summing the squares of the in-phase component and the quadrature component; and taking the square root of the sum of the squares of the in-phase and quadrature components to obtain the composite vector magnitude.

- 5. The method of claim 1, further comprising comparing the composite vector magnitude with a threshold, wherein the attenuating step is conducted if the composite vector magnitude exceeds the threshold.
- 5 6. The method of claim 5, wherein the attenuating step comprises multiplying at least one of the first and second carrier by an attenuation factor.
 - 7. The method of claim 6, wherein the attenuation factor is based on characteristics of a multi-channel baseband signal modulating at least one of said first and second carrier.
 - 8. The method of claim 1, further comprising: comparing the first vector magnitude value with the second vector magnitude value; and

attenuating the first carrier if the first vector magnitude value is larger than the second vector magnitude value.

- 9. The method of claim 6, wherein the attenuating step is conducted if the first vector magnitude value is larger by a selected magnitude than the second vector magnitude value.
- 10. The method of claim 1, wherein the vector magnitude calculating step, the composite vector magnitude calculating step, the comparing step, and the attenuating step are carried out at a baseband processing stage.

10

15

20

11. A method for a plurality of carriers, each carrier having an in-phase component and a quadrature phase component, the method comprising:

calculating a plurality of vector magnitude values, each vector magnitude value corresponding to one of said plurality of carriers and calculated by squaring the in-phase component and the quadrature component of the carrier and summing the squares of the in-phase component and the quadrature component;

calculating a composite vector magnitude from the plurality of magnitude values; vector; and

attenuating at least one of the plurality of carriers by an attenuation factor based on the composite vector magnitude.

- 12. The method of claim 11, wherein calculating the vector magnitude value further comprises taking the square root of the sum of the squares of the in-phase and quadrature components to obtain the vector magnitude value.
- 13. The method of claim 11, wherein the attenuation factor is based on characteristics of a multi-channel baseband signal modulating at least one of said first and second carrier.
 - 14. The method of claim 11, further comprising:

comparing at least two of said plurality of vector magnitude values; and

attenuating at least one of said plurality of carriers based on the comparing step if at least one of said carriers is larger by a selected magnitude than another vector magnitude value.

25

20

5

10

15

15. The method of claim 11, wherein the vector magnitude calculating step, the composite vector magnitude calculating step, the comparing step, and the attenuating step are carried out at a baseband processing stage.

16. The method of claim 11, further comprising comparing the composite vector magnitude with a threshold, wherein the attenuating step is conducted if the composite vector magnitude exceeds the threshold.

(